

WHAT IS CLAIMED IS:

1. A digital watermarking device to insert the digital watermark information into the digital information comprising:

5 a digital watermark insertion circuit which inserts, to the digital information, the digital watermark information of the type uniquely specified corresponding to the data held by said digital information.

2. A digital watermarking device as set forth in Claim 1, wherein

5 said digital watermark insertion circuit inserts the digital watermark information of the type uniquely specified corresponding to the time stamp information extracted from the visual data in the digital information into the visual data corresponding to the time stamps.

3. A digital watermarking device as set forth in Claim 2, further comprising

5 a data separation circuit which separates the digital information into the visual data and the audio data, and

a data synthesis circuit which synthesizes the visual data and the audio data, wherein

said digital watermark insertion circuit inserts the digital watermark information to the visual data separated by said data separation circuit, and

said data synthesis circuit synthesizes the visual data containing the inserted digital watermark information and the audio data separated by said data separation circuit.

4. A digital watermarking device as set forth in Claim 2, further comprising

a time stamp detection circuit which detects and extracts the time stamp information from the visual data in said digital information.

5. A digital watermarking device as set forth in Claim 1, further comprising

a data separation circuit which separates the digital information into the visual data and the audio data,

a time stamp detection circuit which detects and extracts the time stamp information from said visual data, and

a data synthesis circuit which synthesizes the visual data and the audio data, wherein

said digital watermark insertion circuit inserts the digital watermark information of the type uniquely specified corresponding to the time stamp information

15 extracted from the visual data into the visual data
separated by said data separation circuit, and

said data synthesis circuit synthesizes the
visual data containing the inserted digital watermark
information and the audio data separated by the data
separation circuit.

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6. A digital watermarking device to detect the
digital watermark information from the digital
information comprising:

5 a digital watermark detection circuit which
detects, from the digital information, the digital
watermark information of the type uniquely specified
corresponding to the data held by said digital
information.

7. A digital watermarking device as set forth in
Claim 6, wherein

5 said digital watermark detection circuit detects
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
information from the visual data corresponding to the
time stamps.

8. A digital watermarking device as set forth in
Claim 7, further comprising

5 a data separation circuit which separates the
digital information into the visual data and the audio
data,

a display signal generation circuit which
prepares the display signal by synthesizing the visual
data with the digital watermark information detected by
said digital watermark detection circuit, and

10 an audio data conversion circuit which converts
the audio data separated by said data separation circuit
into the analog signal, wherein

said digital watermark detection circuit detects
the digital watermark information from the visual data
15 separated by said data separation circuit.

9. A digital watermarking device as set forth in
Claim 7, further comprising

a time stamp detection circuit which detects and
extracts the time stamp information from the visual data
5 in said digital information.

10. A digital watermarking device as set forth in
Claim 6, further comprising

a data separation circuit which separates the
digital information into the visual data and the audio
5 data,

a time stamp detection circuit which detects and
extracts the time stamp information from the visual data

in said digital information,

10 a display signal generation circuit which
prepares the display signal by synthesizing the visual
data with the digital watermark information detected by
said digital watermark detection circuit, and

15 an audio data conversion circuit which converts
the audio data separated by said data separation circuit
into the analog signal, wherein

20 said digital watermark detection circuit detects
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
information from the visual data separated by said data
separation circuit corresponding to the time stamps.

11. A digital watermarking device to insert the
digital watermark information into the digital
information comprising:

5 a digital watermark insertion circuit which
inserts the digital watermark information of the type
uniquely specified corresponding to the data held by
said digital information to the digital information, and

10 a digital watermark detection circuit which
detects the digital watermark information of the type
uniquely specified corresponding to the data held by
said digital information from the digital information.

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12. A digital watermarking device as set forth in Claim 11, wherein

said digital watermark insertion circuit inserts the digital watermark information of the type uniquely
5 specified corresponding to the time stamp information extracted from the visual data in the digital information to the visual data corresponding to the time stamps, and

said digital watermark detection circuit detects
10 the digital watermark information of the type uniquely specified corresponding to the time stamp information extracted from the visual data in the digital information from the visual data corresponding to the time stamps.

15 13. A digital watermarking device as set forth in Claim 11, further comprising

a data separation circuit which separates the digital information into the visual data and the audio
5 data,

a time stamp detection circuit which detects and extracts the time stamp information from said visual data,

a data synthesis circuit which synthesizes the
10 visual data and the audio data,

a display signal generation circuit which prepares the display signal by synthesizing the visual

data with the digital watermark information detected by
said digital watermark detection circuit, and

15 an audio data conversion circuit which converts
the audio data separated by said data separation circuit
into the analog signal, wherein

 said digital watermark insertion circuit inserts,
to the visual data separated by said data separation
20 circuit, the digital watermark information of the type
uniquely specified corresponding to the time stamp
information extracted from the visual data,

 said data synthesis circuit synthesizes the
visual data containing the inserted digital watermark
25 information and the audio data separated by the data
separation circuit, and

 said digital watermark detection circuit detects,
from the visual data separated by said data separation
circuit corresponding to the time stamps, the digital
30 watermark information of the type uniquely specified
corresponding to the time stamp information extracted
from the visual data in the digital information.

14. A digital watermark insertion method to insert
the digital watermark information into the digital
information, wherein

 inserting the digital watermark information of
5 the type uniquely specified corresponding to the data
held by the digital information to the digital

information.

15. A digital watermark insertion method as set forth in Claim 14, wherein

extracting the time stamp information
corresponding to the visual data in the digital
5 information when the digital watermark information of
the type uniquely specified corresponding to the data
held by the digital information is inserted to the
digital information, and

10 inserting the digital watermark information of
the type uniquely specified corresponding to the time
stamp information to the visual data corresponding to
the time stamps.

16. A digital watermark detection method to detect the digital watermark information from the digital information, wherein

5 detecting the digital watermark information of
the type uniquely specified corresponding to the data
held by the digital information from the digital
information.

17. A digital information detection method as set forth in Claim 16, wherein,

when the digital watermark information of the
type uniquely specified corresponding to the data held

5 by the digital information is detected from the digital
information,

extracting the time stamp information
corresponding to the visual data in the digital
information and detecting the digital watermark
10 information of the type uniquely specified corresponding
to the time stamp information from the visual data
corresponding to the time stamps.

18. A computer readable memory to store the digital
watermark insertion program which executes the digital
watermark insertion processing to insert the digital
watermark information to the digital information by
5 controlling the computer, wherein

said digital watermark insertion program
comprising the functions of:

executing the processing to insert, to the
digital information, the digital watermark information
10 of the type uniquely specified corresponding to the data
held by the digital information.

19. A computer readable memory to store the digital
watermark insertion program as set forth in Claim 18,
wherein

said digital watermark insertion program
5 extracting the time stamp information
corresponding to the visual data in the digital

information when inserting the digital watermark
information of the type uniquely specified corresponding
to the data held by the digital information to the
10 digital information, and

inserting the digital watermark information of
the type uniquely specified corresponding to the time
stamp information into the visual data corresponding to
the time stamps.

15 20. A computer readable memory to store the digital
watermark detection program which executes the digital
watermark detection processing to detect the digital
watermark information from the digital information by
5 controlling the computer, wherein

said digital watermark detection program
comprising the functions of:

executing the processing to detect, from the
digital information, the digital watermark information
10 of the type uniquely specified corresponding to the data
held by the digital information.

21. A computer readable memory to store the digital
watermark detection program as set forth in Claim 20,
wherein

said digital watermark detection program,
5 when the digital watermark information of the
type uniquely specified corresponding to the data held

by the digital information is detected from the digital information,

10 extracting the time stamp information
corresponding to the visual data in the digital
information and detecting the digital watermark
information of the type uniquely specified corresponding
to the time stamp information from the visual data
corresponding to the time stamps.

15 22. A digital watermarking device to insert the
digital watermark information into the digital
information comprising:

5 a digital watermark insertion means for inserting,
to the digital information, the digital watermark
information of the type uniquely specified corresponding
to the data held by said digital information.

23. A digital watermarking device as set forth in
Claim 22, wherein

5 said digital watermark insertion means inserts
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
information into the visual data corresponding to the
time stamps.

24. A digital watermarking device as set forth in

Claim 23, further comprising

a data separation means for separating the
digital information into the visual data and the audio
5 data, and

a data synthesis means for synthesizing the
visual data and the audio data, wherein

said digital watermark insertion means inserts
the digital watermark information to the visual data
10 separated by said data separation means, and

said data synthesis means synthesizes the visual
data containing the inserted digital watermark
information and the audio data separated by said data
separation means.

15 25. A digital watermarking device as set forth in
Claim 23, further comprising

a time stamp detection means for detecting and
extracting the time stamp information from the visual
5 data in said digital information.

26. A digital watermarking device as set forth in
Claim 22, further comprising

a data separation means for separating the
digital information into the visual data and the audio
5 data,

a time stamp detection means for detecting and
extracting the time stamp information from said visual

data, and

10 a data synthesis means for synthesizing the
visual data and the audio data, wherein

15 said digital watermark insertion means inserts
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data into the visual data
separated by said data separation means, and

20 said data synthesis means synthesizes the visual
data containing the inserted digital watermark
information and the audio data separated by the data
separation means.

27. A digital watermarking device to detect the
digital watermark information from the digital
information comprising:

5 a digital watermark detection means for detecting,
from the digital information, the digital watermark
information of the type uniquely specified corresponding
to the data held by said digital information.

28. A digital watermarking device as set forth in
Claim 27, wherein

5 said digital watermark detection means detects
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital

information from the visual data corresponding to the time stamps.

29. A digital watermarking device as set forth in Claim 28, further comprising

5 a data separation means for separating the digital information into the visual data and the audio data,

a display signal generation means for preparing the display signal by synthesizing the visual data with the digital watermark information detected by said digital watermark detection means, and

10 an audio data conversion means for converting the audio data separated by said data separation means into the analog signal, wherein

said digital watermark detection means detects the digital watermark information from the visual data separated by said data separation means.

30. A digital watermarking device as set forth in Claim 28, further comprising

5 a time stamp detection means for detecting and extracting the time stamp information from the visual data in said digital information.

31. A digital watermarking device as set forth in Claim 27, further comprising

5 a data separation means for separating the
digital information into the visual data and the audio
data,

a time stamp detection means for detecting and
extracting the time stamp information from the visual
data in said digital information,

10 a display signal generation means for preparing
the display signal by synthesizing the visual data with
the digital watermark information detected by said
digital watermark detection means, and

15 an audio data conversion means for converting the
audio data separated by said data separation means into
the analog signal, wherein

said digital watermark detection means detects
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
20 information from the visual data separated by said data
separation means corresponding to the time stamps.

32. A digital watermarking device to insert the
digital watermark information into the digital
information comprising:

5 a digital watermark insertion means for inserting
the digital watermark information of the type uniquely
specified corresponding to the data held by said digital
information to the digital information, and

10 a digital watermark detection means for detecting
the digital watermark information of the type uniquely
specified corresponding to the data held by said digital
information from the digital information.

33. A digital watermarking device as set forth in
Claim 32, wherein

5 said digital watermark insertion means inserts
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
information to the visual data corresponding to the time
stamps and

10 said digital watermark detection means detects
the digital watermark information of the type uniquely
specified corresponding to the time stamp information
extracted from the visual data in the digital
information from the visual data corresponding to the
time stamps.

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34. A digital watermarking device as set forth in
Claim 32, further comprising

5 a data separation means for separating the
digital information into the visual data and the audio
data,

a time stamp detection means for detecting and
extracting the time stamp information from said visual

data,

10 a data synthesis means for synthesizing the
visual data and the audio data,

a display signal generation means for preparing
the display signal by synthesizing the visual data with
the digital watermark information detected by said
digital watermark detection means, and

15 an audio data conversion means for converting the
audio data separated by said data separation means into
the analog signal, wherein

20 said digital watermark insertion means inserts,
to the visual data separated by said data separation
means, the digital watermark information of the type
uniquely specified corresponding to the time stamp
information extracted from the visual data,

25 said data synthesis means synthesizes the visual
data containing the inserted digital watermark
information and the audio data separated by the data
separation means, and

30 said digital watermark detection means detects,
from the visual data separated by said data separation
means corresponding to the time stamps, the digital
watermark information of the type uniquely specified
corresponding to the time stamp information extracted
from the visual data in the digital information.